

CLAIMS

1. A battery pack, comprising:  
a plurality of battery modules each having at least one positive terminal and one negative terminal associated therewith; and  
a flexible circuit configured to connect said plurality of positive and  
5 negative terminals to an output of said battery pack.
2. The battery pack of claim 1, wherein at least one of said battery modules comprises a plurality of individual battery units, each battery unit including at least one positive terminal and one negative terminal.
3. The battery pack of claim 2, wherein at least one of said battery units includes a plurality of bicells.
4. The battery pack of claim 1, wherein said flexible circuit further comprises flaps configured such that said flaps are connected to one of said battery module terminals.
5. The battery pack of claim 4, wherein at least one of said battery module terminals further includes a respective tang configured for connection to said flap.
6. The battery pack of claim 5, wherein said flexible circuit further includes windows configured to allow at least a portion of said tangs to pass therethrough.
7. The battery pack of claim 5, wherein said tangs are in registry with said flaps, one of said battery unit terminals being electrically connected to said flaps via said tangs.
8. The battery pack of claim 1, wherein said flexible circuit further comprises a plurality of jumpers.

9. The battery pack of claim 1, wherein said flexible circuit further comprises a controller connector, said controller connector being configured to receive a battery controller, said connector being further configured to be in sensing relation to each battery module.

10. The battery pack of claim 1, wherein said flexible circuit further comprises a fuse.

11. The battery pack of claim 1, wherein said flexible circuit further comprises a pack connector.

12. The battery pack of claim 1, wherein said flexible circuit further comprises a current sensor.

13. The battery pack of claim 1, further comprising at least one living hinge formed along a flex line on said flexible circuit.

14. A battery pack, comprising:  
a plurality of battery modules each having at least a positive terminal and a negative terminal associated therewith, wherein at least one of said battery modules comprises a plurality of individual battery units, each battery unit including  
5 at least one positive terminal and one negative terminal;  
a flexible circuit configured to connect said plurality of positive and negative battery unit terminals to an output of said battery pack, wherein said flexible circuit further comprises flaps configured such that said flaps to be connected to one of said battery unit terminals.

15. The battery pack of claim 14, wherein at least one of said battery unit terminals further includes a respective tang configured for connection to said flap.

16. The battery pack of claim 15, wherein said tangs are in registry with said flaps, one of said battery unit terminals being electrically connected to said flaps via said tangs.

17. The battery pack of claim 14, wherein said flexible circuit further comprises a controller connector, said controller connector being configured to receive a battery controller, said connector being further configured to be in sensing relation to each battery unit.

18. A method of constructing a battery pack, comprising:  
configuring a plurality of battery modules wherein each said battery module has at least one positive terminal and one negative terminal;  
connecting said plurality of battery modules electrically via a flexible circuit, said flexible circuit being configured to be connected to said terminals via flaps in said flexible circuit.

19. The method of claim 18, wherein at least one of said modules includes a plurality of battery units, each battery unit including at least one positive terminal and one negative terminal.

20. The method of claim 19, wherein at least one of said battery unit terminals further includes a respective tang configured for connection to one of said flaps.

21. The method of claim 19, wherein said tangs are in registry with said flaps, one of said battery unit terminals being electrically connected to said flaps via said tangs.